

## **REMARKS**

Claims 1, 2, 6-9, and 11-16 are pending. Claims 1, 6-9, and 11-16 have been amended. No new matter has been added. Support for the claim amendments may be found in at least FIG. 4 and paragraphs 0016, 0017, and 0040 of the application. Applicants respectfully submit that the claims are in condition for allowance.

### **I. 35 U.S.C. § 112**

#### **Claims 1, 2, 6-9, and 11-16 are Allowable**

The Office has rejected claims 1, 2, 6-9, and 11-16, under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicants have amended the independent claims 1, 9, and 16 to recite a layer 4 or above communication status to overcome the §112, first paragraph rejections. These amendments are fully supported by the application as filed. See, paragraph 0016 of the application, “[t]he transceiver includes a connection port configured to communicate data signals from a computer to a service provider device and a first status indicator configured to indicate at least a layer 3 or above communication status between the computer and the service provider device.” Applicants respectfully submit that a layer 4 or above communication status is fully disclosed by a layer 3 or above communication status.

In addition, Applicants respectfully submit that the claim element “performing a first set of maintenance actions when the status indicates valid upper-layer communication; and performing a second set of maintenance actions when the status indicates invalid upper-layer communication” is fully supported by the application as filed. See paragraph 0040 of the application, “[a] first set of actions is performed if the status indicates valid communication” and “[a] second set of actions is performed if the status indicates invalid communication.” Accordingly, Applicants respectfully request withdrawal of the rejections of claims 1, 2, 6-9, and 11-16, under 35 U.S.C. §112, first paragraph.

## II. 35 U.S.C. § 103

### **Claims 1, 2, 6-9, and 11-16 are Allowable**

The Office has rejected claims 1, 2, 6-9, and 11-16, under 35 U.S.C. §103, as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view U.S. Patent Application No. 2003/0231206 ("Armstrong") and U.S. Patent Application No. 2006/0212919 ("Tsang"). Applicants respectfully traverse the rejections.

The Office, at page 5 of the Office Action, states that AAPA does not explicitly disclose performing a first set of actions when the status indicates valid upper-layer communication and performing a second set of actions when the status indicates invalid upper-layer communication.

### **Claims 1, 2 and 6-8**

The cited portions of Armstrong and Tsang, individually or in combination, do not disclose or suggest the specific combination of claim 1. For example, the cited portions of Armstrong and Tsang fail to disclose or suggest performing a first set of actions when a status indicates valid upper-layer communication, the first set of actions including troubleshooting actions and performing a second set of actions when the status indicates invalid upper-layer communication, the second set of actions including corrective actions, as in claim 1. Armstrong describes an embedded user interface within a communication device that communicates with a user's computer for configuring Internet access, troubleshooting Internet service, and controlling user access to the Internet. See Armstrong, Abstract. In Armstrong, upon receiving a request to provide content from the Internet, the communication device determines if Internet access is available. See Armstrong, Abstract. In Armstrong, if the communication device is not connected or the Internet connection is already in use, the device returns a web page generated locally within the communication device. See Armstrong, Abstract. The cited portions of Armstrong fail to disclose or suggest performing a first set of actions when a status indicates valid upper-layer communication, the first set of actions including troubleshooting actions and performing a second set of actions when the status indicates invalid upper-layer communication, the second set of actions including corrective actions, as in claim 1.

Tsang describes a Set-Top Box configured with a modem and a Main Circuit Board consistent with certain embodiments that learns the modem's IP address by establishing a predetermined relationship between a hardware address of the modem and a hardware address of the Main Circuit Board. See Tsang, Abstract. In Tsang, the hardware address of the modem is ascertained from the predetermined relationship. See Tsang, Abstract. In Tsang, a query is sent from the Main Circuit Board to the hardware address of the modem requesting the modem's IP address. See Tsang, Abstract. In Tsang, a reply is received from the modem providing the modem's IP address to the Main Circuit Board. See Tsang, Abstract. The cited portions of Tsang fail to disclose or suggest performing a first set of actions when a status indicates valid upper-layer communication, the first set of actions including troubleshooting actions and performing a second set of actions when the status indicates invalid upper-layer communication, the second set of actions including corrective actions, as in claim 1. Therefore, the cited portions of Armstrong and Tsang, individually or in combination, fail to disclose or suggest at least one element of claim 1. Hence, claim 1 is allowable. Claims 2 and 6-8 are allowable, at least by virtue of depending from an allowable claim.

### Claims 9-15

The cited portions of Armstrong and Tsang, individually or in combination, do not disclose or suggest the specific combination of claim 9. For example, the cited portions of Armstrong and Tsang fail to disclose or suggest triggering a first set of actions including troubleshooting actions by indicating valid upper-layer communication and triggering a second set of actions including corrective actions by indicating invalid upper-layer communication, as in claim 9. As explained above, Armstrong describes an embedded user interface within a communication device that communicates with a user's computer for configuring Internet access, troubleshooting Internet service, and controlling user access to the Internet. See Armstrong, Abstract. The cited portions of Armstrong fail to disclose or suggest triggering a first set of actions including troubleshooting actions by indicating valid upper-layer communication and triggering a second set of actions including corrective actions by indicating invalid upper-layer communication, as in claim 9.

As explained above, Tsang describes a Set-Top Box configured with a modem and a Main Circuit Board consistent with certain embodiments that learns the modem's IP address by

establishing a predetermined relationship between a hardware address of the modem and a hardware address of the Main Circuit Board. See Tsang, Abstract. The cited portions of Tsang fail to disclose or suggest triggering a first set of actions including troubleshooting actions by indicating valid upper-layer communication and triggering a second set of actions including corrective actions by indicating invalid upper-layer communication, as in claim 9. Therefore, the cited portions of Armstrong and Tsang, individually or in combination fail to disclose or suggest triggering a first set of actions including troubleshooting actions by indicating valid upper-layer communication and triggering a second set of actions including corrective actions by indicating invalid upper-layer communication, as in claim 9. Hence, claim 9 is allowable. Claims 10-15 are allowable, at least by virtue of depending from an allowable claim.

#### Claim 16

The cited portions of Armstrong and Tsang, individually or in combination, do not disclose or suggest the specific combination of claim 16. For example, the cited portions of Armstrong and Tsang fail to disclose or suggest performing a first set of maintenance actions when a status indicates valid upper-layer communication, the first set of maintenance actions including troubleshooting actions and performing a second set of maintenance actions when the status indicates invalid upper-layer communication, the second set of maintenance actions including corrective actions, as in claim 16. As explained above, Armstrong describes an embedded user interface within a communication device that communicates with a user's computer for configuring Internet access, troubleshooting Internet service, and controlling user access to the Internet. See Armstrong, Abstract. The cited portions of Armstrong fail to disclose or suggest performing a first set of maintenance actions when a status indicates valid upper-layer communication, the first set of maintenance actions including troubleshooting actions and performing a second set of maintenance actions when the status indicates invalid upper-layer communication, the second set of maintenance actions including corrective actions, as in claim 16.

As explained above, Tsang describes a Set-Top Box configured with a modem and a Main Circuit Board consistent with certain embodiments that learns the modem's IP address by establishing a predetermined relationship between a hardware address of the modem and a hardware address of the Main Circuit Board. See Tsang, Abstract. The cited portions of Tsang

fail to disclose or suggest performing a first set of maintenance actions when a status indicates valid upper-layer communication, the first set of maintenance actions including troubleshooting actions and performing a second set of maintenance actions when the status indicates invalid upper-layer communication, the second set of maintenance actions including corrective actions, as in claim 16. Therefore, the cited portions of Armstrong and Tsang, individually or in combination fail to disclose or suggest performing a first set of maintenance actions when a status indicates valid upper-layer communication, the first set of maintenance actions including troubleshooting actions and performing a second set of maintenance actions when the status indicates invalid upper-layer communication, the second set of maintenance actions including corrective actions, as in claim 16. Hence, claim 16 is allowable.

**CONCLUSION**

Applicants respectfully request reconsideration and withdrawal of each of the objections and rejections, as well as an indication of the allowability of each of the pending claims.

Any changes to the claims in this response, which have not been specifically noted to overcome a rejection based upon the cited art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

The Examiner is invited to contact the undersigned attorney at the telephone number listed below if such a call would in any way facilitate allowance of this application.

The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-2469.

Respectfully submitted,

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Date

  
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